

## 03—310 Checking, renewing and tightening connecting rod bolts

### Dimensions of connecting rod bolt

| Part no.                                     | Thread dia | Necked-down dia. c when new<br>(fig. item 1) | Min. necked-down dia.<br>c |
|--|------------|--|----------------------------|
| 615 038 02 71                                | M 10 x 1   | 8.4—0.1                                      | 8.0                        |
| Installation pressure of connecting rod bolt |            |  | 45 000 N                   |

### Tightening of connecting rod nuts

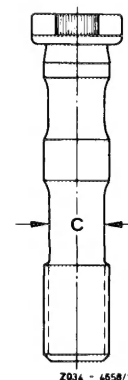
|                            |          |
|----------------------------|----------|
| Initial tightening torques | 40—50 Nm |
| Angle of rotation torque   | 90—100°  |

### Self-made tool

|             |                      |
|-------------|----------------------|
| Steel plate | refer to fig. item 3 |
|-------------|----------------------|

### Checking

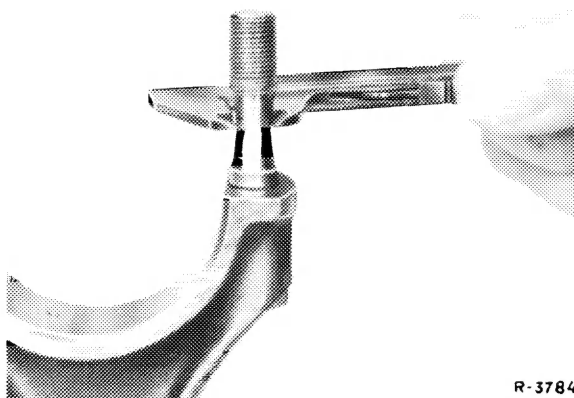
1 Measure minimum necked-down dia. prior to reuse.



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**Note:** Replace connecting rod bolt if the minimum necked-down dia. of 7.2 mm is attained or less than that.

Knock out connecting rod bolt only when it is about to be replaced.



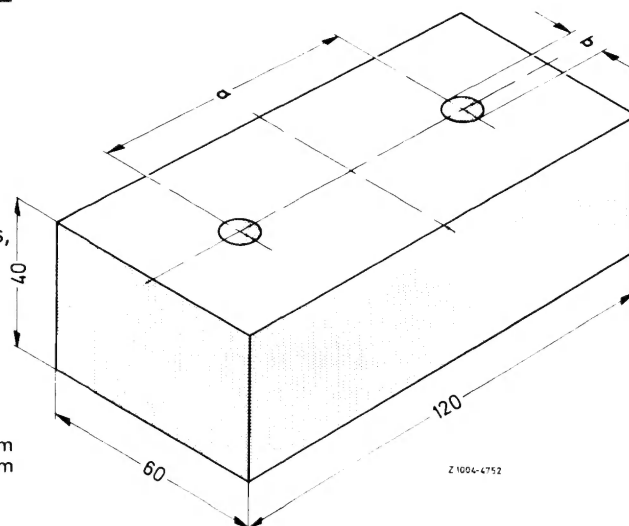
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## Replacement

2 Knock out connecting rod bolts.

3 Press new connecting rod bolts into connecting rod at approx. 45 000 N or knock in with a hammer and a punch.

When knocking in or pressing in connecting rod bolts, set connecting rod on a ground steel plate.



Hole spacing  $a = 67$  mm  
Bore  $b = 11$  mm

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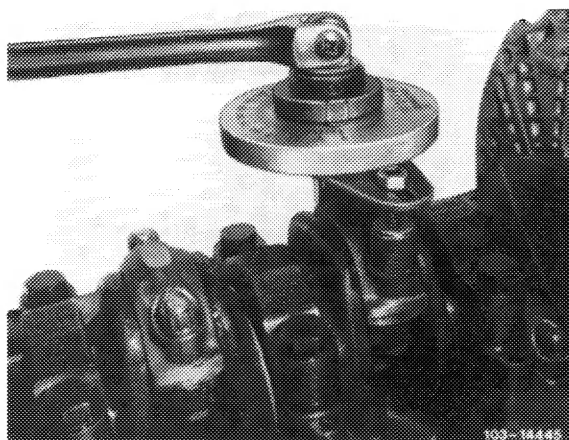
## Tightening

4 Lubricate nuts and threaded support.

5 Tighten connecting rod nut to 40–50 Nm initial torque and then to 90–100° angle of rotation torque.

### Attention!

Tighten connecting rod bolts knocked with a hammer for the first time to 60–70 Nm initial torque and 90–100° angle of rotation torque.



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This specification must be strictly observed, since otherwise the connecting rod nuts may become loose.

**Note:** If no angle of rotation tool is available, the connecting rod nuts can also be tightened by means of a normal socket wrench with tommy bar **in one step** by an angle of 90–100°. This angle should be estimated as accurately as possible. **To eliminate angle of rotation errors, do not use torque wrench for tightening according to angles of rotation.**